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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,632	03/11/2004	Michael V. Shuman	N0186 US	6665

37583 7590 11/26/2010

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ART UNIT	**PAPER NUMBER**
3717	
MAIL DATE	**DELIVERY MODE**
11/26/2010	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/798,632
Filing Date: March 11, 2004
Appellant(s): SHUMAN ET AL.

Adil Musabji
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/08/2010 appealing from the Office action mailed 07/28/2009.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

A Notice of Appeal for a related application, serial number 10/798,703, was filed on September 18, 2009. An appeal brief for that case was filed on December 18, 2009.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 42-80

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6,146,143	Huston et al
6, 343,301	Halt
2003/0059743	Lechner
4,645,459	Graf

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Examiner's Position

Geographic: relating to geography (Encarta)

Geography: the physical features of a place or region (Encarta)

Claims 42-47, 51-64, 66-72 and 74-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al. (US 6,146,143) in view of Halt (US 6,343,301) & Lechner (US 2003/0059743).

Huston discloses a simulation system that accurately depicts the operation of a land based vehicle under a wide variety of driving conditions (Huston: col. 1, lines 58-61). The computer (Huston: col. 4, lines 25-27) system allows a person to drive along a

roadway (Huston: col. 2, lines 3-4) containing other vehicles and traffic lights (Huston: col. 3, line 14).

Regarding claims 42, 60, 64, 68-69 & 76, the prior art discloses a **computer game** or simulator that depicts the operation of a vehicle through a sequence of images (Huston: abstract) depicting a simulated environment stored in a database (Huston: col. 4, lines 39-41). The art attempts to create objects (Huston: col. 7, lines 12-14) and events found in the real world (Huston: col. 6, lines 43-44). Thus based on the provided definitions the art discloses a **geographic database** since said database is used to create a simulated environment populated with objects, vehicles, pedestrians, traffic lights and roads (Huston: col. 2, lines 12-15). In addition, the art describes simulating the **road connectivity** through several **roads in varying positions** or roadway network (Huston: col. 4, lines 42-43), different type of **road shapes** by depicting highways, rural and city roads (Huston: col. 4, lines 46-47), **turn restrictions at intersections** through the use of the vehicle's turn signal (Huston: col. 3, line 62) and road features such as **street names** and **address ranges of the roads** that are conventionally associated with roadways (Huston: col. 4, lines 46-48). However to further clarify that an ordinary artisan would consider street names and address ranges as "conventionally associated with roadways" the Examiner has provided Halt.

The provided reference, Halt states that a **geographic database** representing a region with its geographic features such as the **geographic coordinates of roads**, **street names**, **road segments**, **address ranges** and **turn restrictions at intersections of the roads** are well known features in the art (Halt: col. 1, lines 19-26).

As stated above, Hudson discloses a **geographic database** therefore an ordinary artisan would have combined the two references. As a means to maintain all of the expected features of a geographical database. However the prior art combination is still silent towards who supplies the game developer the database (Huston: col. 4, lines 49-50) required to simulate a driving environment.

Lechner discloses creating a database (par. 53, line 29) for a flight simulator based on a predefined mission route (Lechner: abstract). The reference discloses two methods for a terrain model designer or **map developer** for obtaining images required to properly depict a mission. The reference describes the first method as time consuming and requiring an experienced terrain model designer to manually collect, process terrain source data and construct the terrain model (Lechner: par. 10, lines 3-6). The second method is for the terrain model designer to acquire the data from other **map developers** such as the Joint Services Imaging Processing Station (JSIPS), the Gateway Data Navigator (GDN), the United States Imagery and Geo-spatial Information Services (USIGS), the Master Environment Library (MEL), weather service feeds, commercial database or the like (Lechner: par. 7, lines 1-8). Yet the requested information is limited to data the designer, pilot and other personal have appropriate clearance towards (Lechner: par. 7, lines 8-10). The requested information is further limited to only a certain radial distance along a mission route of a **real world locale** (Lechner: par. 3, lines 1-11). Hence the Examiner interpretation of the art teaching the listed **map developers** as **transforming** a larger database of **data on real world locale** into a smaller or **template database** containing data on an **imaginary**

geographic locale. Thus the **same entity** that **produces the source database** also **transforms the template database**. Concerning '**imaginary**' data, the Examiner has interpreted '**imaginary'** as being describing by the template database containing altered information. Lechner teaches the map developers limiting or altering data for a template database by providing only authorized data that depicts a portion of the world. Thus the boundaries of this template map misrepresent the real world; therefore the Examiner considers the **template database** to contain an **imaginary locale** when compared to the **real world.** To further clarify the Examiner's meaning towards boundaries consider a template database simply containing Time Square in New York City (NYC). A person using the simulator to travel through a virtual Time Square is experiencing an **imaginary geographic locale** since borders or boundaries prevent them from traveling outside of Time Square. Thus misrepresenting the position of Time Square with respect to the rest of NYC and the Earth. Furthermore, copyright laws and licensing fees could prevent the developers of the simulator from including all of the stores and ads known to have residency in Time Square.

Lechner explains obtaining a geographical database from **map developers separate from game developers** as saving time and eliminating the need for an experienced model or map designer (Lechner: par. 10, lines 3-6). Therefore under the motivation provided by Lechner an ordinary artisan would acquire the street database required for the Huston simulator from an experienced **map developer.**

Regarding claim 43, the prior combination teaches providing a **database containing navigational functions for a real-world network** by providing a steering

wheel **21**, accelerator **22**, brake **23**, clutch **24**, gear shift **25**, turn signal **26** and mirror control mechanism **28** (Huston: col. 3, lines 61-63) to control a vehicle on a roadway network (Huston: col. 4, lines 42-43).

Regarding claims 44-46, 61-62, 70 & 77, the prior art discloses realistically incorporating an object into the simulated environment (Huston: col. 7, lines 12-14). Therefore the art teaches providing a **level of accuracy/detail similar to a level provided by the source database**. In addition, Lechner teaches selecting data or **characteristic from a source database to create a template with a similar characteristic** (Lechner: par. 7, lines 8-10). The template database contains only a portion of the real world, the boundaries of this map misrepresents the real world therefore the Examiner considers the **template database** to contain an **imaginary locale** that is **similar to the real world**.

Regarding claims 47, 58, 63, 67, 71-72, 75 & 78, the system disclosed by Huston can create various types of roads: highways, rural roads, **city streets**. Therefore the system is able to illustrate the **road density**, **road shape**, and **road width** properly. In addition, the system simulate the features associated with these roads (Huston: col. 4, lines 44-49) like **altitude changes**, **signs**, **buildings** (Huston: fig. 11) and **point of interest** such as an intersection (Huston: fig. 7). In addition, the system provides a sequence of visual images in accordance with the operation of a vehicle (Huston: col. 1, line 64). Therefore the art **checks road connectivity** to provide a proper sequence.

Regarding claims 51-52, the prior art discloses storing the software in memory (Huston: col. 4, lines 25-27). It is well known in the art of computing that memory is a

computer readable medium such as a **magnetic disk**, an **optical disk**, **RAM**, **ROM** or a **network transmission**. Furthermore, Lechner discloses a company **selling** a commercial database as a **template database** (Lechner: par. 7, lines 8-10) on a computer readable medium (Lechner: par. 16, line 1).

Regarding claims 53-56, 66 & 74, Huston discloses **3D** cityscape and landscape (Huston: Fig. 5-7) containing roads with **lane dividers** (Huston: Fig. 7), **buildings** (Huston: fig. 4)**, clouds** (Huston: col. 2, line 50), **lane strip markings** (Huston: Fig. 6), **curbs**, **sidewalks** and **crosswalk** (Huston: Fig. 6), **pavement** (Huston: Fig 7), other **vehicles**, traffic lights & pedestrians (Huston: col. 2, line 14). All of theses objects create a virtual world containing **characters**, **game logic**, **vehicles** & **game rules**. Even though **traffic signals**, **signs and speed bumps** are not specifically mentioned they are items that are associated with the roads (Huston: col. 4, lines 44-49), which are necessary to test the user's driving knowledge (Huston: col. 5, lines 32-35). Furthermore **fences, trees, shrubbery and lawns** are graphics that could be displayed to properly illustrate a rural road (Huston: col. 4, lines 46-47).

Regarding claim 59, the limitations that are similar to claim 42 are rejected under the same rational. Halt describes functions such as **digital route guidance** and **digital route calculation** as common features found in geographic databases (Halt: col. 1, lines 14-16).

Claims 48-50, 65, 73 & 79-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al. in view of Lechner and Graf (4,645,459)

The above description of the art combination between Huston & Lechner & the limitations they pertain to are considered with in this art rejection as well. Huston discloses a vehicle simulator to teach people how to drive a car in different scenarios. However neither prior art specifically mentions altering the data with horizontal and rotational transformations, displaying golf courses and parks, altering the distance, location and orientation of the roads.

Graf discusses an aircraft flight simulation (FS) as one of the many possible applications for the invented system (col. 1, lines 15-17). The FS system contains a visual subsystem for a vehicle simulator (col. 1, line 25) that receives flight data from the FS computer and terrain data from a 'gaming area' database (col. 1, lines 17-21) and creates a scene from the perspective of the pilot in the cockpit of the aircraft (col. 1, lines 21-24). The visual simulator uses the terrain and flight path or vehicle control data (col. 1, lines 36-40) to determine the location and viewing direction of the visual system of the vehicle (col. 7, lines 12-14). The scenes viewed by the pilot can comprise of images that are fictitious or represent real-life places from anywhere around the world (col. 4, lines 40-41). The images are organized into several databases: 2D, 3D-one axis & 3D-two axis (col. 10, lines 38-44) providing the designer a large variety of images. Allowing the designer to incorporate whatever he/she deems necessary for the scene or 'gaming area' (col. 1, lines 20-21). Thus Graf teaches depicting a simulated environment of the programmer's choosing therefore it would have been obvious for an ordinary artisan to incorporate this way of thinking into the Huston and Lechner simulator.

Regarding claims 48-49 & 79-80, Graf discloses a computer or manual operator generating the scenes that can contain a variety of objects that represent nature: **mountains**, **lakes**, bushes (Graf: col. 10, line 11), **rivers**, etc (Graf: col. 10, line 24), trees, houses, roads, lights, rocks (Graf: col. 5, lines 22-23). Therefore a person or a computer has the means to display a **park**. However the prior art fails to disclose displaying a golf course. It would of have been obvious to one of ordinary skill in the art to include a sand trap object in the 2D surface library to further expand the systems ability to create diverse environments with **golf courses**.

Regarding claims 50, 65 & 73, the 'gaming area' contains geographical features (Graf: Fig. 1) like natural structures like 2D rivers or man-made structures like 3D buildings. The operator of the system is able to create a scene from the perspective of the pilot in the cockpit of the aircraft (Graf: col. 1, lines 21-24). The scenes are constructed in three phases: land, water and sky surfaces (col. 5, line 20). Graf discloses the surface library containing different road surfaces (Graf: col. 5, lines 50). A scene can consisting of roads of different widths and shaped in any direction the user or computer sees fit since either the computer or a manual operator create the scenes (Graf: col. 10, lines 7-10; col. 7, lines 1-8). In other words, the operator is able to manipulate or transform the **location, length**, and **orientation**, etc of the roads based on the control functions (Graf: col. 8, lines 14-21).

(10) Response to Argument

In response to the applicant's argument on ""transforming, by the map developer, the data representing the real-world locale into data representing an imaginary geographic locale to form a template geographic database, " and "providing, by the map developer to a game developer, the computer-readable medium containing the template geographic database, the game developer being separate from the map developer." The combination of the cited references (Huston et al, Halt et al and Lechner) does not teach or suggest at least there features and does not render the claim as obvious."

Respectfully Examiner disagrees with the argument because as claimed on the independent claims **42, 59-60, 68 and 76**, specifically, transforming the real-world locale into data representing an imaginary geographic locale, is broadly interpreted as looking at or referencing at the real-world data to create an imaginary geographic data.

Since the data itself can not evolve, it can only be manipulated by the human or machine input, thus the new data that is created for the imaginary geographic world is newly created data which is based on the real-world data references; A note should be made that the imaginary geographic data that was created referencing the real-world data, is indeed a complete imaginary data because the new imaginary data does not represent the real-world because of it's alternation.

Similarly if we pay close attention to the teaching of Huston, on the abstract Huston discloses following:

"ABSTRACT:

A system for simulating the operation of a vehicle, comprising a monitor for displaying a sequence of visual images; a plurality of control devices for the simulated vehicle for manipulation by an operator of the simulated vehicle; a computer, responsive to manipulation of the simulated vehicle control devices, for presenting a temporal sequence of visual images to the operator on the monitor which depicts the operation of the simulated vehicle along a roadway in a simulated environment; a mechanism for dynamically controlling weather effects in the simulated environment; and a mechanism for creating a traffic event in the simulated environment on demand during a simulation session and presenting the traffic event to the operator substantially immediately thereafter."

A simulated environment in the computer term means, an environment which is created based on the real-world environment. The simulated data depicts the real-world environment however does not represent the real-world environment similar to the applicant's invention. A simulated environment is a virtual environment, regardless what data is used to create the virtual reality, it is not reality; therefore applicant's claim of transforming the real-world data to create an imaginary geographic locale is simple an imaginary locale because it is not a real-world data anymore.

Furthermore in response to the applicant's argument on "Lechner discloses that a terrain model designer may obtain terrain source data from outside sources, such as the Joint Services Imaging Processing Station, the Gateway Data Navigator, or the United States Imagery and Geospatial Information Services. On pages 4-5 of the Final Office action dated July 28, 2009, Examiner Rendon asserted that these Sources are map developers separate from the simulator or game developer of Huston, et al. However, it would make sense for the simulator designer of Huston, et al . to obtain data from the sources described in Lechner because the source of Lechner provide terrain source

data used for flight simulation, not visual images along roadways for depicting accurate driving along streets", Examiner respectfully disagrees because as acknowledged by the applicant in the argument section that the Lechner teaches the terrain source data which is obtained from a terrain data developer to be used in creating flight simulation. A flight simulation is the imaginary or the virtual data which is created based on the obtained terrain data from another source, therefore the motivation is simple and clear for an ordinary skilled artisan because the goal is to create a simulation or simulated data based on the real data; and in regards to the "flight simulation, not visual images along roadways for depicting accurate driving along streets", Examiner also disagrees because in a flight simulation there are visual images involved, such as in reality, sky and the surroundings which is an alternative to the images on the streets.

A copy of Examiner's office action above is noted for the various citation and the references.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/MA/ . 11/12/2010

Conferees:

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